

# Sustainable Aquaculture and Resources Enhancement in Indonesia

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## **Abstract**

With a human population of 230 million and a huge potential for marine and fisheries resources development, Indonesia promotes aquaculture as a major sector to accelerate economic growth for rural communities. There are recent initiatives to improve the country's legal framework to mitigate the adverse impacts of aquaculture and make the aquaculture more sustainable.

The Directorate General of Aquaculture under the Ministry of Marine Affairs and Fisheries (MMAF) has the mandate to develop the aquaculture sector of Indonesia. Aquaculture has an important role in the development of its national economy and play a key role in rural development. As aquaculture production expands, there is also a growing concern over the impacts on sustainability of aquaculture and resource enhancement as well as food quality and safety requirements of fish products.

For this reason, there is a need to improve aquaculture technology and its management system in Indonesia to address the need for eco-friendly production process and food safety concerns while maintaining the sustainability of the country's aquaculture sector. The Indonesian Fisheries Act No. 31 (2004) Amendment No. 45 (2009) mentioned that, among others, the Indonesian fisheries management strategies should include the creation job opportunities, improvement of the welfare of fishers and their communities, and ensuring the sustainability of the country's fishery resources and aquatic environment.

The most critical factors to achieve sustainable aquaculture in Indonesia are the availability of good quality seed, good practice in grow-out systems, healthy aquaculture environment, fish health management, good-quality products, strategic marketing, and improving marketing and stock enhancement. In addition, it is also a concern that the products from aquaculture should meet the quality standard and product safety. This paper presents a review of Indonesian aquaculture in relation to sustainable practices and management schemes to preserve the aquaculture environment, food safety requirements for aquaculture products, food security and to enhance the biodiversity of fishery resources. A policy that was recently established is the development of the marine and fisheries sector based on the principles of the Blue Economy program of the Indonesian government.

**Keywords:** sustainable aquaculture, food safety traceability, resource enhancement, Blue Economy